MORGAN, LEWIS

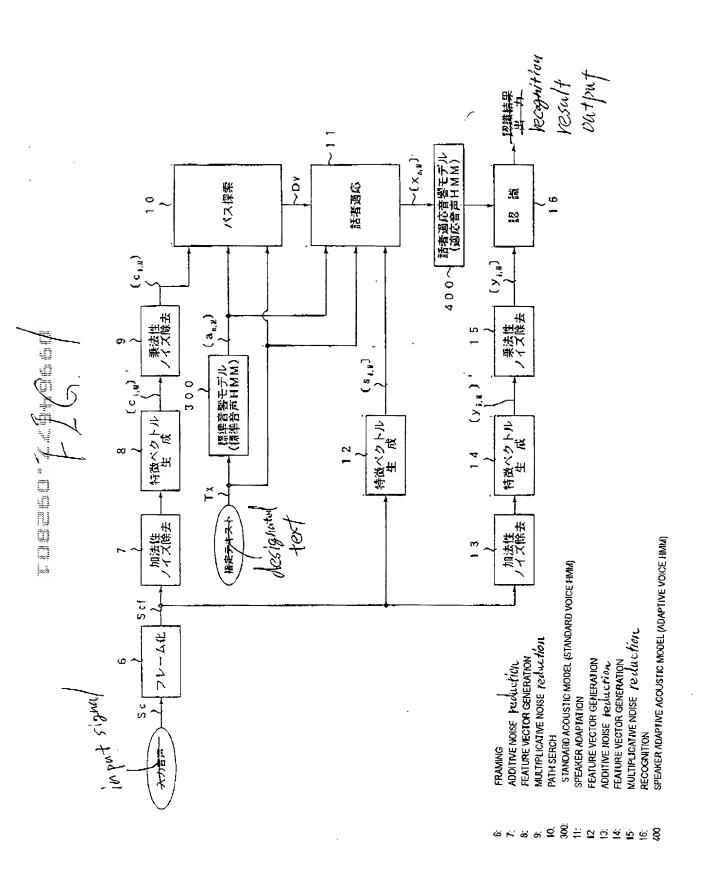


Fig. 2 Filable Standard vector

	. ! '			7,,,,,		
State number	福告	-#	華本ク	►# (a.	. w)	
1	あA	(а _{1. т}	a 1, 2	à 1, 3		ат. и)
2	ΥI	(a _{2.1}	a 2. 2	a 2, 3	****	a _{2, N})
3	Þυ	(a _{3.1}	æ3, ₹	a 3. 3		аз, н)
4	えら	(a.,,	a 4, 7	ā 1, 3	*****	а., н)
5	\$ 60	(as. 1	a 5, 2	a 5, a	•••••	аз, н)
6	梦忆	(a., 1	a 6. 2	2 б. з	,,,,	ас. и ј
:	:		1			_
10	Z KO	(a10.3	a 10. ż	a 10. 3		а 10, ы)
1 1	≢ SA	(a)1.1	2.11, z	a11.3	,	а 11, н)
:	;					
16	KTA	(a16,1	a 1 d. 2	a 1 t. j	•••••	a 10, u)
17	BII	(a17,1	a 17. 2	a 17. 3		a _{17. µ})
<u>:</u>	:					
2 1	TXXA	(名マ1, 1	乱21. z	2 2 1. 3	******	a 21, 11]
22	IZNZ	(a22,)	a 22, 2	a 12, 1	*****	2 22, M)
i			;			
26	1/\$HA	(a 25. 1	A 26, 2	a 26. 3	******	а 25. н)
:	:		:			
3 1	\$HA	(a _{31.1}	à 31, 2	a 31, 3		азі, и)
:						
3 6	* IA	[ass. 1	2 sc. 7	2 16. 3		азы.м)
3 7	BOU	(a)). i	2 31. z	a 47, 3		а 37, м)
3.8	KYO	(a 3 8, 1	а _{за, 2}	а за. з	,,,,,	аза. м)
3 9	RA	[ass. 1	2 12, z	a 39, 3	*****	а,,,,)
	:		;			
4 4	初份	(a11,1	911.3	Z 44, 2		а 44. м)
4 5	学版	(a45.1	2 45, 2	Z 4 5. 3		ais.m)
4 6	KM	(a45.1	2 4 6. Z	A 4 8. 3		2 46. M)
:			:			
N	<u>:</u>]	(a », ı	2 N. 2	Z H. 3 .	****	ам.и)

Fig. 3 :Flavie number

Time.

2 (\$ 2. 1 \$ 2. 2 \$ 2. 3 \$ 2. M 3 (\$ 3. 1 \$ 3. 7 \$ 3. 3 \$ 3. M 4 (\$ 4. 1 \$ 4. 2 \$ 4. 3 \$ 4. M 5 (\$ 5. 1 \$ 5. 2 \$ 5. 3 \$ 5. M 6 (\$ 6. 1 \$ 6. 2 \$ 6. 3 \$ 5. M)
2 [\$2.1 \$2.2 \$2.3 \$2.M 3 [\$3.1 \$3.7 \$3.3 \$3.M 4 [\$4,1 \$4.2 \$4.3 \$4.M 5 [\$5.1 \$5.2 \$5.3 \$5.M 6 [\$6.1 \$6,2 \$6.3 \$5.M 7 [\$7.1 \$7.2 \$7.3 \$7.N 8 [\$8.1 \$8.2 \$8.3 \$5.M 9 [\$9,1 \$9.2 \$9.3 \$8.M 10 [\$10,1 \$10,2 \$10,3 \$10,M 11 [\$11,1 \$11,2 \$11,3 \$11,M 10)
3 [S3, 1 S3, 2 S3, 3 S3, M 4 [S4, 1 S4, 2 S4, 3 S4, M 5 [S5, 1 S5, 2 S5, 3 S5, M 6 [S6, 1 S6, 2 S6, 3 S6, M 7 [S7, 1 S7, 2 S7, 3 S7, N 8 [S8, 1 S8, 2 S8, 3 S5, M 9 [S9, 1 S9, 2 S9, 3 S8, M 10 [S10, 1 S10, 2 S10, 3 S10, M 11 [S11, 1 S11, 2 S11, 3 S11, M)
4 [S4, 1 S4, 2 S4, 3 S4, M] 5 [S5, 1 S5, 2 S5, 3 S5, M] 6 [S6, 1 S6, 2 S6, 3 S6, M] 7 [S7, 1 S7, 2 S7, 3 S7, M] 8 [S8, 1 S8, 2 S8, 3 S8, M] 9 [S9, 1 S9, 2 S9, 3 S8, M] 10 [S10, 1 S10, 2 S10, 3 S10, M] 11 [S11, 1 S11, 2 S11, 3 S11, M])
5 (S 5. 1 S 5. 2 S 5. 3 S 5. M) 6 (S 6. 1 S 8, 2 S 6. 3 S 6. M) 7 (S 7. 1 S 7. 2 S 7. 3 S 7. M) 8 (S 8. 1 S 8. 2 S 8. 3 S 5. M) 9 (S 9. 1 S 9. 2 S 9. 3 S 9. M) 1 0 (S 10. 1 S 10. 2 S 10. 3 S 10. M) 1 1 (S 11. 1 S 11. 2 S 11. 3 S 11. M))
6 (S 6. 1 S 8, 2 S 6. 3 S 6. M S 7 (S 7. 1 S 7. 2 S 7. 3 S 7. N S 7. N S 7. N S 8 (S 8. 1 S 8. 2 S 8. 3 S 8. M	-
7 (\$7.1 \$7.2 \$7.3 \$7.4 \$8 (\$8.1 \$8.2 \$8.5 \$8. M \$9 (\$9.1 \$9.2 \$9.3 \$8. M \$10 (\$10.1 \$10.2 \$10.3 \$10. M \$11 (\$11.1 \$11.2 \$11.3 \$11. M	
8 (S 8. 1 S 8. 2 S 8. 3 S 8. M S 9 (S 9. 1 S 9. 2 S 9. 3 S 9. M S 10. M S 10. M S 11. M)
9 (S 9, 1 S 9, 2 S 9, 3 S 9, M) 10 (S 10, 1 S 10, 2 S 10, 3 S 10, M) 11 (S 11, 1 S 11, 2 S 11, 3 S 11, M))
10 [S10, 1 S10, 2 S10, 3 S10, M] 11 [S11, 1 S11, 2 S11, 3 S11, M]]
11 [S11,1 S11,2 S11,3 S11,M]]
10 (J
12 [512 512 2 512 2 51-11]	J
312. M	j
13 (S13, 1 S13, 2 S13, 3 S13, M)	
14 [S14.1 S14.2 S14.3 S14.M]	
15 (S15. 1 S15. 2 S15. 3 S15, M)	
16. (SIE, 1 SIE, 2 SIE, 2 SIE, M)	
17 [S17.1 S17.2 S17.3 S17, M]	
18 (S18.1 S18.2 S18.3 S18, M)	
19 [S19, 1 S19, 2 S19, 3 S19, M]	
20 (S 20, 1 S 20, 2 S 20, 2 ····· S 20, M)	
<u>:</u>	
29 [S20, 1 S20, 2 S29, 3 S29, M]	
30 (S30. 1 S30. 2 S30, 3 S30, M)	

The state st

Flame number

AT THE TIME OF SPEAKER ADAPTATION, FEATURE VECTOR [ci, M] OUTPUTTED FROM MULTIPLICATIVE NOISE REMOVAL SECTION 9

Time 時間

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			OATNE NOISE		
フレーム番号 i	話者i からb	箇応の際に 出力される	こ乗ば性。 る特徴へ	ノイズ除 フトル(去部9 c , 」)
1	(c1, 1	C 1, 2	C 1. 3		С1. м .)
2	[C z. 1	C 2, 2	C 2, 3	*****	C 2. M)
3	(C 3, 1	C 3, 2	C 3, 3	414177	Сз. м)
4	(C4, 1	C 4. 2	C 4, 3	******	C4.M)
5	(C 5. 1	C 3, 7	C 5, 3		C 5. M)
6	(C 5. 1	C 6, 2	С 6, 3	******	С б. м)
7	(C7.1	C 7, 2	C 7. 3	*****	C 7. N]
8	[C 8. 1	C a, z	C 8, 3	1,,,,,	C s. M)
9	(co.,	C 9, 2	С э, з		С е. н]
10	(C 10. 1	C 10. 2	C 10. 3	*****	C 10. M)
1 1	(C11.1	C 11, 2	C 11, 3	*****	С 11, м]
1 2	(C F2. 1	C 1 z. 2	C 12. 3		C 12. M]
1 3	(C13.1	С 13. 2	C 13, 3		C 13, M)
14	[C14, 1	C 14, 2	C 14, 3	*****	C 14, M]
15	(C 15, 1	C 15, 2	C 15, 3	*****	C 15, M)
16	(C 1 â, 1	C 15. 2	C 16, 3	*****	C 16. M]
1 7	(C17, 1	C 17, 2	C 17, 3	*****	C 17, M]
18	(C 1 a, 1	C 1 B, 2	C 18, 2	7/2842	C 18. M)
19	[C19.1	C 19, 2	C 19. 3	*****	С 19. м.)
2 0	(C 20, 1	C 20, 2	C 20, 3		C 20. M]
:			-		
2 9	[C 29. 1	C 29. 2	C 29. 3	*****	C 29. M)
3 0	(C30, 1	C 3 a, 2	C 3 b. 3		C 10, M)
			-		

Fig.5

	Slame numbe	w	- State number
一) ドア 時間	フレーム番号	状態番号 n	
[] []	1	10	
	2	1 0	1.00
	3	10	1 to KO
·	4	1 0	1
-	5	1 0	
•	6	1 0	
	7	4 6	
	8	4 6	} (/k) N
	9	4 6	
	1 0	4 6	
	1 1	2 2	
,	1 2	2 2	(1/2) N2
	1 3	2 2	
	14	2 2	J
	15	1 7	
	1 6	1 7	(\$) 7I
	17	1 7	(9) 12
	1 8	1 7	J
	1 9	4 4	
	2 0	4 4	
	:	:	(*) WA
'	2 9	4 4	
·	3 0	4 4	

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		12-6	(
	aber Senture	: 5t	rate number	1
Slame nu	nber (vector	` f	Standa	-d
大大五 番号	特徴ベクナル(Si、u)	找起電号	標準ベクトルー 〔a a , u]	
1	(s _{1,1} s _{1,M})	10	[aro.: aro.u]	1
2	(Sz, 1 Sz, H)	10	[a10.1 *** a10.4]	1 10
3	(S 3. T S 3, M)	10	[a10.1 "a10.4]	}(\$) ko
4	[S4, 1 " S4, H]	10	(a10.1 "a10.4)	11'
5	(S 5, 1 S 5, M)	10	[a10,1 "a10,m]	1
6	(Se, 1 Se, 4)	10	(a 15, 1 " A 10, H]	1
7	(57.1 " 57.4)	46	(a 45, 1 a 46, M)	1
. 8	(\$ 8, 1 - S a, M)	4 6	[a + s, 1 a + c, m]	1
9	(\$ s, 1 " S s, u)	4 6	(a15,1 a16.4)	Y (2)
10	(Sin. 1 Sio. M)	4 6	(a46.1 "a46.M)	
11	(\$11,1 " \$11,M)	2 2	. (a z z. 1 ··· a z z. w)	
1 2	(\$ = 2, 1 ··· \$ 12, M)	2 2	. (агг. 1а гг. м)	CAN7
1 3	(\$15,1 \$ - 2, 4)	2 2	(a z z . 1 ··· a z z . H)	JUES NI
1 4	(\$14.1 ··· \$14.4)	2 2	(a22, 1 ··· a22, H)] }
15	(S 15. 1 " 5 15. M)	17	[атл тап, и]	
1 6	(S14,1 S10, W)	17	(a17, 1 ··· a12, w)	}(5) ⊤2
17	(\$17,1 ··· \$17,4)	17	(a17, 1 ~ a-7, x)	مر ر _{هر})م
18	(S18, 1 " S18, M)	1 7	(a17,1 "a17,4)	
1.9	(\$13,1 ··· \$13,4)	4 4	(244, 7 ··· 244, 4)	
2 0	(\$10,1 \$20, w)	4.4	(a44,1a44,4)	
;	<u>:</u>	:		1#5 WA
2 9	(529.1 ··· 529, H)	44	(a.z.,a.z., u)	
3 0	(15 30. 1 ··· \$ 30, H)	44	(a.i.,a.i., u)	

F1G.7

		overage Feature	e /st	ate number —Stan	dated vector
		平均特徴ベクトル (s [^] n. u)	状態番号	標準ベラトル [an.u]	
average od	i = 1 ~ 6 0平均	(\$^10.1 - S^10.x)	10	(a10,1 "a10, u)	+ (t) ko
averagea	Hi = 7~10 0平均	(Z_48" 1 Z_48" M)	4 6	(a46,1 "a46,4)	- WIN
averaged	i =11~140平均	[s 22, 1 s 22, M]	2 2		- 115 M
Average of	1=15~18 0章 均	(S 17, 1 S 17, H)	17		- (X) TZ
average of	i =19~30 0平均	(\$ 1 - S H)	4 4		- (36-WA

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F16.8

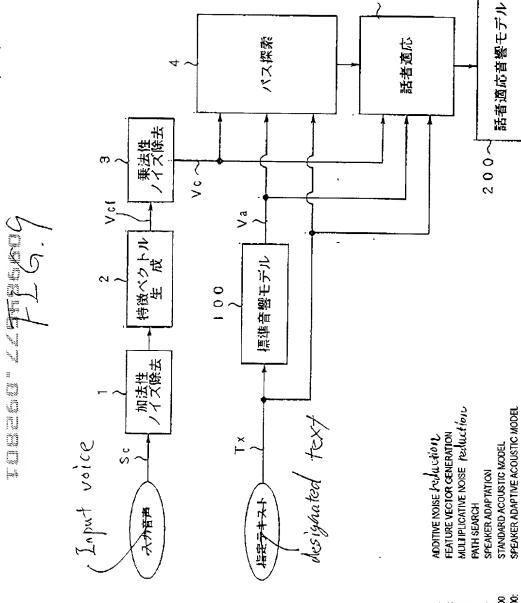
State number /hb/e

Adaptive vector of acoustic HMM

after updated.

		That I have the
状態番号 n	音節	更新後の更新音声HMMの適応ベクトル
1	\$	[X1.1 X1.2 X1.3 X1.M]
2	XI	[X 2, 1
3	* <i>50</i>	[X 1, 1 X 2, 2 X 3, 1 X 3, M]
4	ŹΕ	[X4.1 X4.2 X4.3 X4.H]
5	<i>¥</i> 50	[X 5, 1 X 5, 2 X 5, 3 X 5, N]
6	ps/s	(X6,1 X6,7 X6,7 X6,4)
:	<u></u>	<u> </u>
10	<i>710</i>	The state of the s
1 1	* /A	[X11,1 X11,2 X11,3 X11, N]
:	:	
16	だTA	(X15,1 X16,2 X16,3 X16,M)
17	\$11	(X17.1 X17.2 X17.3 X17.N)
:	:	
21	#MA	[X21, 1 X11, 2 X21, 3 X21, M]
2 2	IZIA	[X 22, 3
	:	
26	JÆHA	[X 26. 1 X 26, 2 X 26, 3 X 26, M]
	´;	÷
3 1	#/A	(X31.1 X31.2 X31.3 X31.M)
:	É	į
3 6	*A	[X 16, 1 X 16, 2 X 16, 1 X 16, M]
3 7	MAYU	(X37, 1 X37, 2 X37, 3 X37, M)
38	£ [0	[X38.1 X38.2 X38.1 X38.4]
3 9	BRA	[X39,1 X39,2 X39,1 X37, M]
4.4	かけ	(X44, 1 X44, 2 X44, 2 X44, M)
4 5	₹WU	[X45.1 X45.2 X45.3 X45, M]
4.6	KIM	[X46, 1 X46, 2 X46, 3 X46, M]
:		:
N	<u>: </u>	(XN.1 XN.2 XN.3 XN.M)

ß



-- 44 44 45 <u>65</u> 68